

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN THE MATTER OF:

ATTN.: APPLICATIONS DIVISION

APPLICANT: ADAMEK

FOR: PISTON FOR A HYDRAULIC SHOCK ABSORBER  
AND METHOD FOR MAKING THE SAME

Date: September 6, 2001

PRELIMINARY SIMULTANEOUS AMENDMENT

Hon. Commissioner of Patents  
and Trademarks  
Washington, D.C. 20231

S I R:

Prior to examination of the present application, please amend as follows:

IN THE CLAIMS:

Change Claims 1 to 14 to read as follows:

1. Piston for a hydraulic dashpot, whereby the piston (1) is mounted on one end of a piston rod (3), travels back and forth inside a cylinder (2), which it divides into two chambers (4 & 5), and has a body (10) provided with axial channels (6 & 7), each of which can be opened and closed at the end by a one-way valve in the form of a cup spring or stack of cup springs (8 & 9), independently adjusting their tensions for both the compression and the suction phases, characterized in that the cup springs (8 & 9) rest against and in alignment with the body, and the tension is adjusted by deforming the body resiliently or plasticly against its contact surface.

2. Piston as in Claim 1, characterized in that the body (10) is in several parts.

3. Piston as in Claim 2, characterized in that the body (10) is composed of a central bolt (11) with a continuous collar (22) and of two piston halves (12 & 13) that rest axially against and accommodate the collar at each end.

4. Piston as in Claim 2, characterized in that the body (10) is composed of

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a central bolt (11) with two axially separate continuous collars (34 & 35), the piston halves (12 & 13) positioned between them,

5. Piston as in Claim 2, characterized in that the body (10) is composed of a central bolt (11) with a continuous groove and comprises two piston halves (12 & 13), whereby the groove is engaged by two noses (36).

6. Piston as in Claim 3, characterized in that its halves (12 & 13) are sintered metal.

7. Piston as in Claim 1, characterized in that its means of applying tension are in the form of a screw-tight mechanism comprising nuts (17 & 18) that operate in conjunction with threads (15 & 16) extending around the bolt (11).

8. Piston as in Claim 1, characterized in that the surrounding surface of either the collar (22) or the heads (28 & 29) of the bolt halves (26 & 27) are not round but preferably polygonal and fit into matching recesses in the piston halves (12 & 13).

9. Piston as in Claim 1, characterized by round and/or radial and preferably knife-like elevations on the faces of the depressions (31) in the piston halves (12 & 13).

10. Piston as in Claim 1, characterized by mutually engaging elevations on and depressions in the inner adjacent faces of the piston halves (12 & 13).

11. Method of manufacturing a piston as in Claim 3, characterized in that the bolt (11) is produced by welding two halves (26 & 27) together, leaving a bead (36) that constitutes the collar (22).

the bolt (11) is produced from two halves (26 & 27), each provided with a head (28 & 29), by welding or otherwise fastening the mutually contacting heads together to the collar (22).

13. Method of manufacturing a piston as in Claim 1, characterized in that the bolt halves (26 & 27) are welded or otherwise fasten together the piston halves (12 & 13) that accommodate them.

14. Method of fastening a piston as in Claim 1 to a piston rod, characterized in that the bolt (11) is welded to the piston rod (3) or to a washer (19) or shock-accommodating disk (25) mounted around the piston rod.

#### REMARKS

Applicant has amended the claims to express them in more definite form to avoid multiple dependency.

A copy of the claims with markings to show the changes that have been made, is enclosed.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as Express Mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231 on 10-16-01  
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Max Fogiel  
 Signature  
10-16-01  
 Date of Signature

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VERSION WITH MARKINGS TO SHOW  
CHANGES MADE TO CLAIMS

Claims

1. Piston for a hydraulic dashpot, whereby the piston (1) is mounted on one end of a piston rod (3), travels back and forth inside a cylinder (2), which it divides into two chambers (4 & 5), and has a body (10) provided with axial channels (6 & 7), each of which can be opened and closed at the end by a one-way valve in the form of a cup spring or stack of cup springs (8 & 9), independently adjusting their tensions for both the compression and the suction phases, characterized in that the cup springs (8 & 9) rest against and in alignment with the body, and the tension is adjusted by deforming the body resiliently or plasticly against its contact surface.

2. Piston as in Claim 1, characterized in that the body (10) is in several parts.

3. Piston as in Claim 2, characterized in that the body (10) is composed of a central bolt (11) with a continuous collar (22) and of two piston halves (12 & 13) that rest axially against and accommodate the collar at each end.

4. Piston as in Claim 2, characterized in that the body (10) is composed of a central bolt (11) with two axially separate continuous collars (34 & 35), the piston halves (12 & 13) positioned between them,

5. Piston as in Claim 2, characterized in that the body (10) is composed of a central bolt (11) with a continuous

1 groove and comprises two piston halves (12 & 13), whereby the  
2 groove is engaged by two noses (36).

3 CLAIM 3

4 6. Piston as in one of Claims 3 through 5, characterized  
5 in that its halves (12 & 13) are sintered metal.

6 CLAIM 1

7 7. Piston as in one or more of Claims 1 through 6,  
8 characterized in that its means of applying tension are in the  
9 form of a screw-tight mechanism comprising nuts (17 & 18) that  
10 operate in conjunction with threads (15 & 16) extending around  
11 the bolt (11).

12 CLAIM 1

13 8. Piston as in one or more of Claims 1 through 7,  
14 characterized in that the surrounding surface of either the  
15 collar (22) or the heads (28 & 29) of the bolt halves (26 &  
16 27) are not round but preferably polygonal and fit into  
17 matching recesses in the piston halves (12 & 13).

18 CLAIM 1

19 9. Piston as in one or more of Claims 1 through 8,  
20 characterized by round and/or radial and preferably knife-like  
21 elevations on the faces of the depressions (31) in the piston  
22 halves (12 & 13).

23 CLAIM 1

24 10. Piston as in one or more of Claims 1 through 9,  
25 characterized by mutually engaging elevations on and  
26 depressions in the inner adjacent faces of the piston halves  
27 (12 & 13).

28 CLAIM 3

29 11. Method of manufacturing a piston as in one or more of

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1 Claims 3 and 6 through 10, characterized in that the bolt (11)  
2 is produced by welding two halves (26 & 27) together, leaving  
3 a bead (36) that constitutes the collar (22).

CLAIM 3

4  
5 12. Method of manufacturing a piston as in one or more of  
6 Claims 3 and 6 through 10, characterized in that the bolt (11)  
7 is produced from two halves (26 & 27), each provided with a  
8 head (28 & 29), by welding or otherwise fastening the mutually  
9 contacting heads together to the collar (22).

CLAIM 1

10  
11 13. Method of manufacturing a piston as in one or more of  
12 Claims 1 through 10, characterized in that the bolt halves (26  
13 & 27) are welded or otherwise fasten together the piston  
14 halves (12 & 13) that accommodate them.

CLAIM 1

15  
16 14. Method of fastening a piston as in one or more of  
17 Claims 1 through 10 to a piston rod, characterized in that the  
18 bolt (11) is welded to the piston rod (3) or to a washer (19)  
19 or shock-accommodating disk (25) mounted around the piston  
20 rod.